

City of San José 311 transition non-emergency service-related calls from Police to Customer Contact Center - Data Article

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Introduction

The City of San José maintains three contact centers that handle emergency and non-emergency contacts that constitute 9-1-1, non-emergency response and 3-1-1 response for the organization. An audit was conducted in 2018-2019 recommending improvements to call handling across 9-1-1 and 3-1-1. This data article summarizes the work City did with its partners Mission Critical Partners and Google.org to work on the measures recommended by the Audit to reduce non-emergency contacts absorbed by 9-1-1 staff and deliver positive customer experience.

Background

This analysis was conducted in the fall of 2019 and this document represents the state of City's call centers at that time and the recommendations and changes made thereafter.

The City of San José Police and Fire Departments manage emergency calls and dispatching of public safety resources for calls made within the geographic boundary of the city. Up until 2019, in addition to handling emergency calls, call takers in both Police and Fire Departments used to handle non-emergency and 3-1-1 calls.

Non-Emergency Calls accounted for about 40% of the call volume in Police Communications.

The State of California requires that 95% of 9-1-1 calls be answered within 15 seconds. In October 2017, CalOES (California Governor's Office of Emergency Services) notified San José that it was not meeting the minimum call answering time.

In response to the grand jury notice, the City Auditor initiated an audit of 9-1-1 / 3-1-1 call answering times. Additionally, the Civil Grand Jury conducted an investigation into San José's 9-1-1/3-1-1 times. Both reports had similar findings:

1. Opportunities to improve call answering times
2. Growing call volume and workload has increased the urgency to hire qualified communication staff
3. Staffing police non-emergency phone calls with emergency call takers is inefficient
4. The City could improve customer service for non-emergency calls and better utilize 3-1-1

The work on these findings was split between City's IT Department (ITD)/City Customer Contact Center (CCCC), Police Department, and Fire Department where ITD and the CCCC worked on #1 and #4 while the Police Department and the Fire Department worked on #2 and the Police Department worked on #3.

Method

The data dive was done at two levels – Calls and City Services mainly tracked through My San José (now San José 311). The team completed the data dive in the fall of 2019 and the actual data captured in this analysis is only until October 31st, 2019.

Police and Fire Call Centers

The police call volume for 2019 was largely consistent with 2018 levels. The call center received 758,000 calls for a total of 32,000 hours of agent talk time in 2019 as of Oct 31st (+1% Year over Year or YoY).

California requires 95% of 911 calls be answered within 15 seconds. Based on these call volumes the State's 911 standards were unmet.

The analysis found that the 9-1-1 call volumes ramp up quickly from 8am-12pm, leading to an increase in ring time and a decrease in proportion of calls that meet 15 seconds threshold. If 8am - 12pm capacity issue was corrected, state standards could be met.

9-1-1 Accidental calls have also been increasing substantially over the past two years and this is just Agent Talk Time (incoming) + Total Process Time (outgoing), and is not representative of total time required to answer and return calls

After analyzing the calls linkage to CAD events, the team found that for Police calls 52% of Non-Emergency calls result in CAD events and 60% of Emergency calls resulted in CAD events, while for Fire Calls 12% of calls on non-emergency lines resulted in CAD events and 82% of calls on emergency lines resulted in CAD events. The proportion of Non-Emergency Police calls resulting in a CAD event had been increasing, while proportion of Emergency police calls resulting in CAD had been falling.

Police non-emergency is expected to receive substantial incoming calls. The analysis showed that 11% of non-emergency calls came through 10-digit number prior to 3-1-1 switch and many police non-emergency calls were transferred from 3-1-1 back to police call center. Police needed to continue to account for mid-weekday non-emergency bump in calls.

City Services

The team analyzed the data through the service requests created through City's My San José (now San José 311) platform.

Based on the analysis the team concluded that the residents prefer online tools, are 95% more likely to submit a service request online when option is available and more than 60% of service requests are submitted through app or website. They also observed that the Service Requests have been increasing steadily.

A breakdown of the service requests by source shows that beginning in 2017 the number of requests opened by call center agents was higher but over time that source has shifted and (as of 2019) City was receiving roughly the same number of service requests from all three sources – Phone (call center agents), Web and Mobile.

The team identified the following challenges faced by the City Customer Contact Center (CCCC) are:

- Most service requests handled by agents couldn't be completed online, including water & garbage billing & support, which account for 53% of calls.
- Staff felt limited in their tools & resources.
- Chat was time consuming for call takers. Responses were entered manually.
- Most calls answered were transferred or rerouted.
- Most low-English proficiency residents chose English option, assuming it would be easier & faster. When they didn't, at least 3x amount of time was spent on Spanish & Vietnamese calls due to the need to get a translator.

Results

Observations from the Police and Fire Call Center analysis -

1. Addressing 8am-12pm wait times would allow Police call center to meet 9-1-1 targets.
2. Accidental Calls were a significant and increasing problem and would have to be addressed to reduce load on Police call-takers.
3. 52% of Police non-Emergency calls and 14% of Fire non-Emergency calls result in CAD events, further study should be done to determine how to reduce load of remaining calls.

Key observations from the Call Center Data analysis are -

1. Around 45% of CCCC calls were dropped by residents underscoring the importance of updating the phone tree.
2. When available, residents used the app and website more frequently than the phone to submit service requests.
3. Some residents that do not want to create an account online would call instead (i.e. illegal dumping and abandoned vehicles).
4. Around 50% of calls were regarding utility payments.
5. Of the known request types, abandoned vehicles and utility payments were the categories with the highest call volume.

The team also conducted usability testing and UX research on various aspects of call center and San José 311 platform and came up with following recommendations.

- Transition 311 calls from Police Department to the City Customer Contact Center
- Activate 311 dialing for T-Mobile and Verizon cell phone users
- Change My San José branding to San José 311

- Staff more Police call takers during the 8AM-12PM period
- Institute the call back feature for accidental Police calls
- Launch marketing campaigns to educate the public as to the appropriate numbers to call and online resources to use
- Measure the impact of the 3-1-1 call back feature
- Improve call classification to identify next areas of automation and improvement (i.e. utility support and payment for water and garbage)
- Improving phone and web payment processing for utilities
- Add virtual agents to automate some of the processes
- Add new services to the San José 311 platform

Conclusions

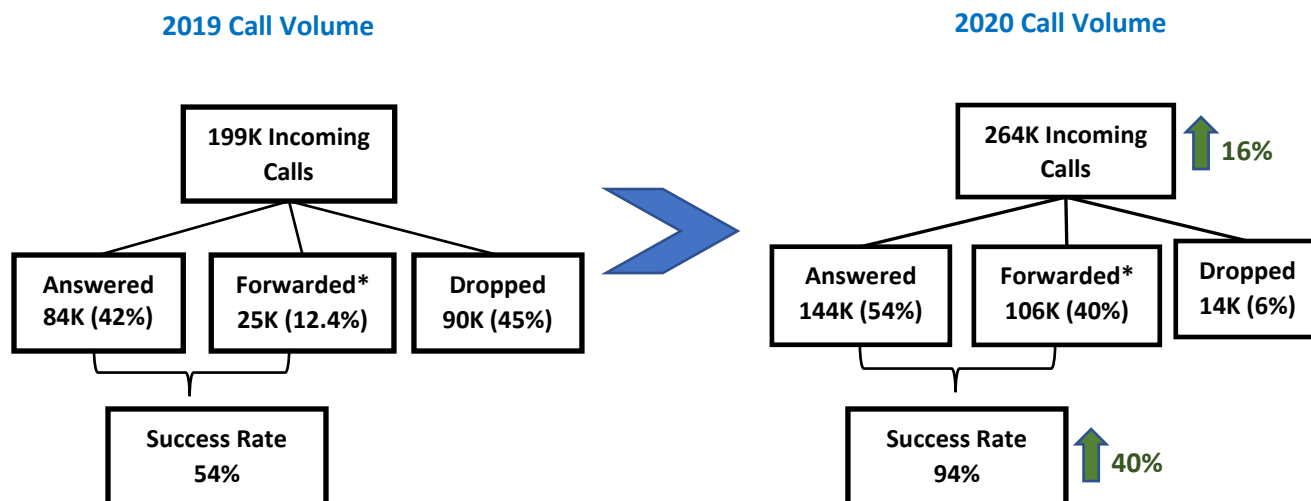
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Based on this analysis and the recommendations, City implemented the following changes -

- In March 2020, 3-1-1 calls were transitioned over from Police Department to City's Customer Contact Center that now handles all City's service-related calls. There are still many non-emergency calls that need to go to police – loud vehicles or other law violations that are not emergencies.
- 311 dialing was activated for T-Mobile and Verizon cell phone users to bring them at par with AT&T and Sprint.
- My San José was rebranded to San José 311 on National 3-1-1 Day in 2020 making City Customer Contact Center the unified 3-1-1 center for the City.
- In June 2020, to align with the City's plan to have San José 311 serve as the omni channel platform, chatbot service was added to the website and mobile app.
- Another change implemented in June 2020 was the addition of CAPTCHA for Service Request creation to prevent the use of bots.
- Police Department modified their non-emergency call tree to have San José 311 as option-1 in October 2020
- Spanish and Vietnamese Language Translation was added to the San José 311 platform in November 2020.
- In December 2020, English and Spanish virtual agents were added to the call tree to automate some of the processes and free up time for City Customer Call Center staff to take more complex calls.
- New Recycling and Garbage services were added to the San José 311 platform in March 2021 that brought huge volumes of Service Requests to the platform.
- Marketing campaigns were launched to educate the public – this is a continuing effort as the City continues to add more services to the platform.
- City continues to take feedback from call takers and the San José 3-1-1 platform to improve call classification and adapt to the needs.

Post analysis on the 911 emergency calls was done with limited resources and staff. Additional resources and detailed analysis is required to get a complete understanding of the impact the implemented changes had on the 911 emergency calls.

The City Customer Contact Center call volume went up in 2020 compared to 2019 as can be seen in the comparison and breakdown chart in the Figure below.

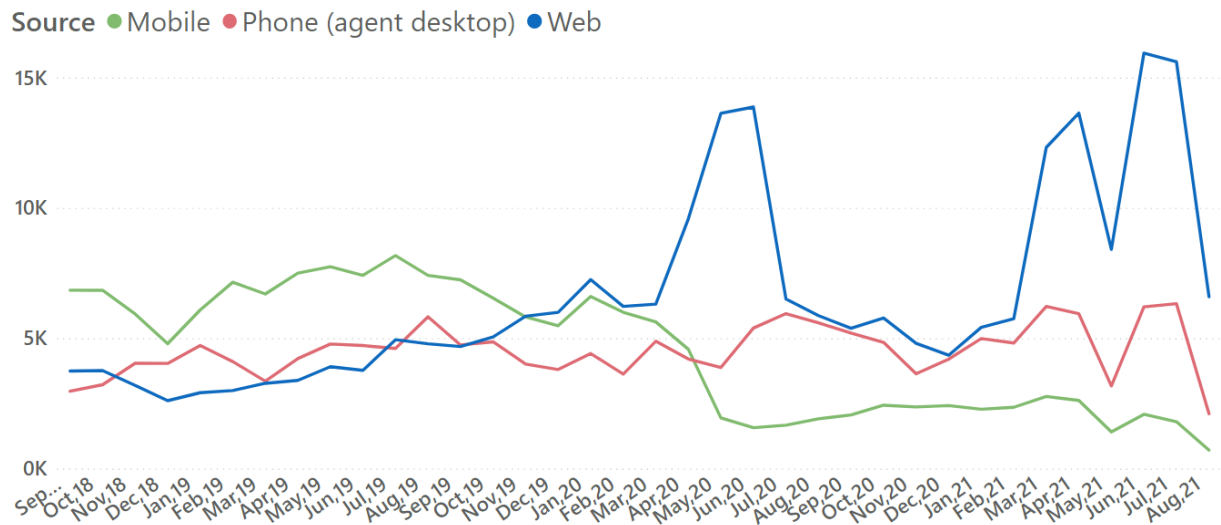


*Forwarded calls are the calls directed to another department within the City, or its contracted service providers, either by our call center staff or by the caller themselves by selecting an option on the call tree.

In 2020, the City Customer Contact Center handled 16% more calls and the call answering success rate went up by 40%. In addition to the above counts, Call Center also handled approximately 25k additional non-emergency service-related calls from the Police Department in 2020.

The Service Request volumes received through City's My San José (now San José 311) have stayed the same in 2020 perhaps due to the pandemic. City launched Recycling and Residential Garbage services in March of 2021 and the number of service requests for 2021 has already (captured until August) surpassed the previous years. Another interesting observation from the data as can be seen in table and the line chart below, there has been a switch from Mobile to Web use in 2020 and 2021 which could also be attributed to the pandemic when people spent more time on their desk than outside with their phones. Further detailed analysis is needed to confirm these assumptions.

Source	2018	2019	2020	2021 (till August)
Agent Desktop	45,458	54,884	56,561	43,970
Mobile	76,883	83,297	39,202	17,528
Web	41,838	50,785	89,164	95,736
Total	164,179	188,966	184,927	157,234



Customer satisfaction as measured through City’s My San José (now San José 311) app shows a huge improvement in 2021 compared to 2019 and 2020.

Data informed decisions is at the forefront for the City and the 3-1-1 team, and the Service Owners are actively monitoring the Key Performance Indicators for the 3-1-1 platform to measure customer satisfaction, Turnaround time for service delivery and Active Users. The teams are also actively trying to bring equity measures into its analysis to help understand the needs of different communities. At the same time City is also working on adding new services to the 3-1-1 platform and make it a having a one-stop point for addressing all service-related needs for the residents. City’s Public Safety Answering Point (PSAP) and the Customer Contact Center continue to work together to support each other and provide better services to the residents in the right place and meet them where they are.